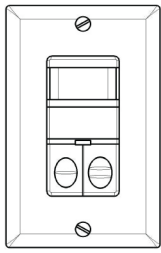


# INSTALLATION INSTRUCTIONS



DOS180LP-D

**DOS180LP-D**  
**OCCUPANCY / VACANCY**  
 (2-IN-1)  
**SENSOR SWITCH**  
**DUAL LOAD**

## SPECIFICATIONS

Voltage .....	120/277VAC, 60Hz
Incandescent .....	800W
Fluorescent/Ballast.....	800VA@120VAC / 1600VA@277VAC
Motor .....	1/4Hp
Time Delay.....	15Sec to 30Mins
Light Level.....	30 Lux-Daylight
Operation Temperature.....	32°F -- 131°F

## DESCRIPTION

The passive infrared sensors work by detecting the difference between heat emitted from the human body in motion and the background space. The sensor switch can turn a load on and hold it as long as the sensor detects occupancy. After no motion is detected for the set time delay, the load turns off automatically. DOS180LP-D has two relays (equal to Dual Load Switch), and also includes an Ambient Light Level Sensor.

### Coverage Area

The coverage range of the sensor switch is specified and illustrated in Figure 1. Large objects and some transparent barriers like glass windows will obstruct the sensors' view and prevent detection, causing the light to turn off even though someone is still in the detection area.

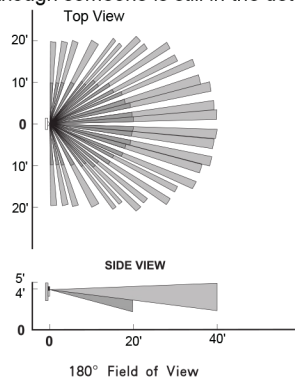


Figure 1

**WARNING:** Turn off the circuit breaker before installation.  
 Ground wire is required.  
 In door use only.  
 Do not exceed electrical ratings.

## INSTALLATION

1. Connect lead wires as WIRING DIAGRAM (see Figure 2): Black lead to Line 1 (Hot), Blue lead to Line 2 (Hot), Red lead to Primary Load wire, Brown lead to Secondary Load wire, Green lead to Ground.

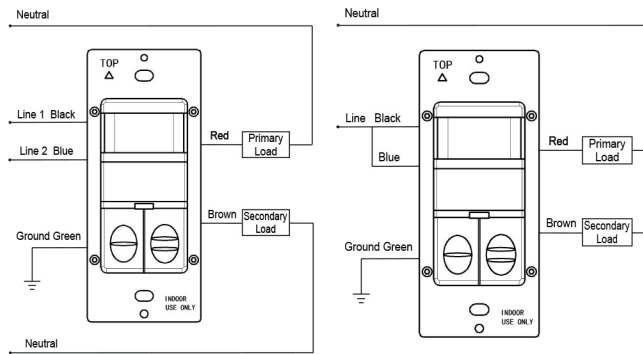


Figure 2

- Gently position wires in wall box, attach sensor switch to the box.
- Mount device "TOP" up.
- Restore power at circuit breaker or fuse, wait **three** minutes.
- Remove the small cover plate (illustrated in Figure 3).
- Locate the adjustment knobs on the control panel to perform test and adjustment (illustrated in Figure 3).
- Replace the small cover plate after testing and adjustment.
- Attach the wallplate.

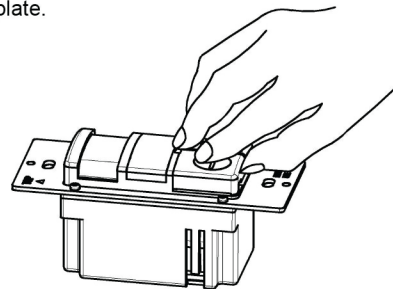
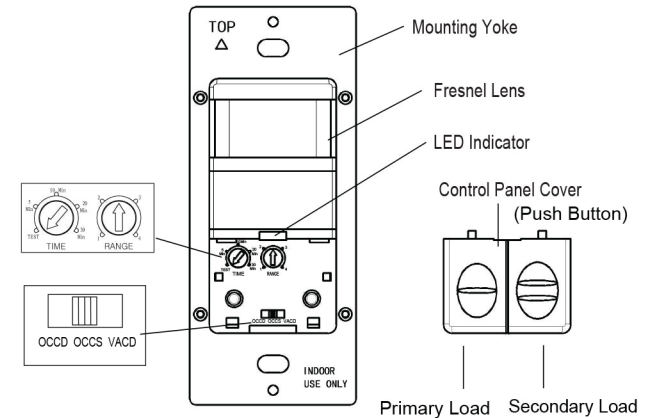


Figure 3

## ADJUSTMENT



### Band switch prescription.

Mode	Position	Description	React to the push-button
OCCD	Left	Occupancy Mode: Dual Load Automatically On, Automatically Off after set time delay both Loads together.	Manually toggles the loads On / Off
OCCS	Center	Primary Load Occupancy Mode: Automatic On, Automatic Off after set time delay. Secondary Load VAC Mode: Secondary Load Manual On, Automatic Off after set time delay	Manually toggles the loads On / Off
VACD	Right	Vacancy Mode: Manual On only, Automatic Off after set time delay.	Manually toggles the loads On / Off

### Time Delay knob

Default position: 15 Seconds (Test mode)  
 Adjustable: from 15 Seconds to 30 Minutes (clockwise)

### Sensor Sensitivity Range Knob

Default position: Center at 65%  
 Adjustable: 30% (Position 1) to 100% (Position 4)

*Note: Turn toward right for greater room space.  
 Turn toward left to avoid false alert in smaller room and near the door way or heat source.*

### Ambient Light Level

After Initialization (3 minutes), set the Band Switch to VACD, press and hold the primary Manual ON/OFF Button for 6 seconds until the Load turns on, release the primary button within the next 4 seconds. The Load will turn off and stay off for a maximum of 10 seconds. The Load will turn on again (2 seconds) and then off. This will set the current light

# INSTALLATION INSTRUCTIONS

level as the default Ambient Light Level. Set the Band Switch to OCCD or OCCS mode. The Load will turn on only if motion is detected and the Ambient Light Level also is below the set light level.

*Note: Use ambient light feature when daylight source is available.*

## Restore to factory default (daylight)

Set the Band Switch to VACD, press and hold the primary Manual ON/OFF Button for 6 seconds until the Load turns on. Continue holding the primary button for another 5 seconds until the Load turns off. Release the primary button and set the Band Switch to OCCD or OCCS Mode.

## ◆ OPERATION

The Sensor Switch can be used to select either Occupancy Mode or Vacancy Mode as set by the Band Switch position under the control panel cover. Some might call the Vacancy mode, "Manual On Occupancy Mode".

### Manual On/Off Button

By Pushing the Control Panel Cover, the Load can be turned On/Off under either OCC or VAC mode (illustrated in Figure 5).

### Occupancy Mode - Auto on, Auto Off

Load will be Automatically On once occupancy is detected.

### Vacancy Mode - Manual On, Auto Off

On/Off Button must be pushed to turn On the Load.

### Automatic Off

In all modes, the sensor keeps the Load(s) On until no motion is detected for the set time delay, load(s) will be turned Off automatically.

### Manual Off

By pushing Manual On/Off Button, the Load(s) will be turned Off under any mode.

Under OCCD or OCCS modes, the Load(s) can not automatically turn on for 5 minutes after the last motion is detected.

### Manual Off - One Load

One Load stays On until no motion is detected during the set time delay. The manually turned Off Load stays Off all the time.

## ◆ TROUBLESHOOTING

For proper operation, the Sensor Switch has to consume power from hot and **Ground**. Therefore, a **Secured Ground Wiring is required**.

### Initial run

The Sensor Switch needs to **intialize for 3 minutes**. During the initialization, the load might be turned On and Off several times.

The Time Delay knob is set to 15 seconds by default, do not adjust it until initialization is completed and proper operation function confirmed.

### The Load is out of control (frequently flashing)

1. It can take up to three minutes for initial run.
2. Check the wiring connections, especially the **Ground Wiring**.

### The Load does not turn On without LED flashing or LED flashes regardless of motion

1. Push Manual On/Off Button. If the load turns On, verify that Sensitivity Range is on high. If the Load does not turn On, go to Step 2.
2. Check the wiring connections, especially Hot line and Ground wiring.

### The Load does not turn On while LED flashes with motion detected

1. Check to see if Ambient Light Level is enabled by covering the lens by hand.
2. Push Manual On/Off Button. If the load turns On, verify that Sensitivity Range is on high. If the Load does not turn On, go to Step 3
3. Check the wiring connections, especially Hot Line and Ground wiring

### The Load does not turn Off

1. There can be up to a 30 minutes time delay after the last motion detected. To verify proper operation, turn the Time Delay Knob to 15s (Test Mode), make sure there is no motion (no LED flashing), the Load should turn Off in 15 seconds.
2. Check if there is any significant heat source mounted within six feet (two meters) that may cause false detection such as a high wattage light bulb, portable heater, or HAVC device.
3. Check the wiring connections, especially the Neutral wiring to the sensor switch.

### The Load turns On when not desired

1. Switch from OCCD to VACD mode.
2. Mask the Sensor Switch's lens to eliminate unwanted coverage area.
3. Turn the Sensitivity Level knob toward left to avoid false alert in a smaller room and when near the door way.

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